CANADA

NATIONAL ENERGY BOARD
REASONS FOR DECISION

In the Matter of an Application Under the National Energy Board Act

of

St. Lawrence Power Company

April 1984

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ENGLISH

Cat. No. NE22-1/1984-6E
ISBN 0-662-13279-3

This report is published separately in both official languages.

Copies are available on request from:

Secretariat
National Energy Board
473 Albert Street
Ottawa, Canada
K1A 0E5
(613) 992-3972

Ce rapport est publié séparément dans les deux langues officielles.

Exemplaires disponibles auprès du:

Secrétariat
Office national de l'énergie
473, rue Albert
Ottawa (Canada)
K1A 0E5
(613) 992-3972

Printed in Canada

Imprimé au Canada

NATIONAL ENERGY BOARD

In the Matter of the Application Under
the National Energy Board Act
of

ST. LAWRENCE POWER COMPANY

The Board, having received and considered the report dated April 1984 of the Presiding Member, Mr. R.F. Brooks, made pursuant to Section 14 of the Act, and on the basis of that report having satisfied itself with regard to all considerations that appear to it to be relevant, hereby adopts that report as the statement of its findings and its decision on the application.

Dated at Ottawa, Canada, 3 May 1984.

L.M. Thur
Associate Vice-Chairman

J. Farmer
Associate Vice-Chairman

A.D. Hunt
Associate Vice-Chairman

J. L. Trudel
Member

A.B. Gilmour
Member

Recital and Appearances

IN THE MATTER OF the National Energy Board Act and the Regulations thereunder; and

IN THE MATTER OF an application by St. Lawrence Power Company for licences to export power and energy, pursuant to Part VI of the said Act, filed with the Board under file number 1923-S38-1.

HEARD: at Ottawa, Ontario on 3 April 1984.

BEFORE:

R.F. Brooks	as Presiding Member duly appointed by the Board for that purpose in accordance with Section 14 of the National Energy Board Act

APPEARANCES:

J.H. Francis, Q.C.	St. Lawrence Power Company
G. Fairweather	Cornwall Street Railway Light & Power Co. Ltd. (operating as Cornwall Electric)
M. Hare	Ontario Hydro
A. Frame	Ministry of Energy for Ontario
L. Meagher	National Energy Board

Chapter 1
Background

The Applicant, St. Lawrence Power Company, is a Canadian company which was incorporated by Dominion Charter in 1901 and continued under the Canadian Business Corporation's Act by a Certificate of Continuance issued in 1979. It is a wholly-owned subsidiary of Opinac Investments Limited, an Ontario corporation, which is a wholly-owned subsidiary of Niagara Mohawk Power Corporation, a corporation of the State of New York.

St. Lawrence distributes electricity in the west portion of the City of Cornwall, Ontario. It also sells power at wholesale rates to Cornwall Electric which distributes electricity in the east part of Cornwall and a portion of the Township of Charlottenburg.

St. Lawrence has no generating facilities of its own and purchases all its power requirements from the following four sources.

1) **Cedars Rapids Transmission Company Limited**. Cedars holds a long-term contract which entitles it to purchase power from Hydro-Québec until 31 December 1999. St. Lawrence has an agreement with Cedars, terminating on 30 June 1984, whereby it receives up to 55 MW. A new agreement, dated 22 December 1983, has already been signed continuing this supply of power until 31 December 1984. Negotiations for a longer term agreement which would become effective as of 1 January 1985 are in progress.

   Cedars owns a double-circuit 115 kV transmission line running from the Cedars Generating Station of Hydro-Québec to Cornwall, Ontario, and crossing into the United States where it terminates at the Dennison station of Niagara Mohawk. The line is tapped at Cornwall to supply St. Lawrence. The U.S. section of the line is owned by Long Sault, Inc. Both Cedars and Long Sault are subsidiaries of Aluminum Company of America.

   St. Lawrence has been exporting power over the Cedars lines since 1974, first under its licence EL-77, as amended and, since 1979, under its licence EL-115 which expires on 30 June 1984. The Cedars lines are also used by Hydro-Québec to make exports under its own licences.

   St. Lawrence pays Cedars a fixed demand charge based on a value of 55 MW regardless of the amount of power taken. Consequently, St. Lawrence takes its full entitlement under the contract at all times and, during the hours when its load is below 55 MW, resells the portion surplus to its own needs as interruptible energy. The additional cost to St. Lawrence for the energy above its own requirements is a relatively small charge, presently seven and seven-tenth mills ($0.0077) per kilowatt hour.

   As the St. Lawrence load has grown, less and less of the power supplied by Cedars has been available for export and additional sources of supply have been obtained to meet the St. Lawrence requirements above the 55 MW level.

2) **Canadian Niagara Power Company**. This company, located at Niagara Falls, Ontario, is also a subsidiary of Opinac Investments Limited. St. Lawrence purchases firm power from Canadian Niagara in quantities which have been increased from time to time as the St. Lawrence load increased. The maximum quantity was set at 50 MW in an agreement dated 14 December 1983. This power is exported over the international power lines of Canadian Niagara and/or Ontario Hydro in the vicinity of Niagara Falls and Fort Erie, Ontario, and wheeled over the power lines of Niagara Mohawk and Long Sault and imported back into Canada over the Cedars lines.

3) **Hydro-Québec or Niagara Mohawk**. When still more power is required, St. Lawrence turns to Hydro-Québec or, alternatively, Niagara Mohawk. St. Lawrence has entered

into an agreement with Hydro-Québec, dated 28 September 1981, for the purchase of interruptible energy; it has also arranged with Niagara Mohawk, in a contract dated 30 June 1977, for emergency service throughout the year and for regular service during the period between October 1st and the following March 31st each year. The supply from Niagara Mohawk is used only if the supply from Hydro-Québec is not available.

4) **Ontario Hydro**. St. Lawrence is able, in the event of failure of its other supplies, to meet part of its load by connecting it to the Ontario Hydro system. Ontario Hydro then wheels power and energy from Niagara Mohawk to Cornwall through Ontario in such quantities as permitted by system conditions at the time.

A map showing the St. Lawrence service area is attached as Appendix 1.

A schematic drawing of the St. Lawrence service area, power supply sources and transmission lines is attached as Appendix 2.

Chapter 2
Licences Held by the Applicant

The Applicant currently holds three export licences as follows:

1) EL-114, which authorizes the export of firm power and energy as a carrier transfer in the amount of 40,000 kW and 250 million kW.h in any consecutive twelve-month period.

   Order AO-2-EL-114 dated 19 May 1982 increased the quantity of power which could be exported to 50,000 kW.

2) EL-115 which authorizes the export of interruptible energy in a quantity not exceeding 150 million kW.h in any consecutive twelve-month period.

3) EL-116, which authorizes the unscheduled circulating equichange carrier transfer of inadvertent capacity and energy for simultaneous return to Canada in a quantity not exceeding 150 million kW.h in any consecutive twelve-month period.

Chapter 3
The Application

St. Lawrence applied for three export licences to run for a term of five years starting on 1 July 1984, when its current licences expire.

The first licence would authorize the export in the vicinity of Niagara Falls, Ontario, of up to 250 GW.h per annum of electrical energy, at a rate not to exceed 50 MW, as a firm carrier transfer of power and energy for simultaneous return to Canada at Cornwall to supply St. Lawrence's customers.

The second licence would authorize the export of up to 150 GW.h per annum of interruptible energy to Niagara Mohawk.

The third licence would authorize the export of up to 150 GW.h per annum of inadvertent unscheduled circulating equichange energy.

These limits are the same as those of the Applicant's current licences.

The application requested that the Board waive the requirements for the specific information requested under Paragraphs 6(2)(e) and 6(2)(t) of the NEB Part VI Regulations. These two Paragraphs call, respectively, for load flow diagrams of the interconnected U.S. power system and for information on the geographic extent and nature of the U.S. market to be served by the proposed export. Because of the nature of the proposed exports and the small size in relation to the Niagara Mohawk system, the Board granted these waivers in a letter dated 20 February 1984.

Chapter 4
The Export Contracts

The Applicant submitted the following contracts covering the proposed exports:

1) **The Carrier Transfer**

a) An agreement dated 14 December 1983 between Canadian Niagara Power Company and St. Lawrence (Exhibit V). Under this agreement, Canadian Niagara agrees to sell up to 50 MW of power and energy to St. Lawrence and to deliver it to Niagara Mohawk by way of its own international power lines and/or those of Ontario Hydro. The agreement came into effect on 1 January 1984, and will continue until superseded by a subsequent agreement . The current price consists of a monthly demand charge of $7.84 per kW and an energy charge of $0.0175 per kW.h.

b) A letter agreement dated 20 January 1977, between Niagara Mohawk and St. Lawrence (Exhibit XI). Under this agreement Niagara Mohawk will wheel power and energy from the international boundary between Niagara Falls, Ontario, and Niagara Falls, New York to the international boundary between Massena, New York, and Cornwall, Ontario. The agreement came into effect on 1 July 1977, and will continue until terminated upon 90 days written notice by either party. The current price, established in 1982, is $2.72(U.S.) per hour per MW.

c) An agreement dated 20 June 1977 between Niagara Mohawk and Long Sault, Inc. (Exhibit XII) covering the leasing of an amount of transmission capacity on Long Sault's circuits connecting to the Cedars lines sufficient for Niagara Mohawk to meet its obligations under the above wheeling agreement.

2) **The Interruptible Energy Export**

An agreement between St. Lawrence Power Company and Niagara Mohawk dated 15 December 1983. (Exhibit III). Under this agreement, Niagara Mohawk agrees to purchase all surplus interruptible energy which St. Lawrence can make available from the systems of Hydro-Québec or Canadian Niagara. This agreement will remain in effect until 30 June 1989. The current price is 20 mills per kW.h (U.S.).

Articles SIXTH and EIGHT of the agreement require that the price for energy conforms with the following three criteria:

a) The price recovers the appropriate share of costs incurred by St. Lawrence.

b) The price is similar to that which St. Lawrence would charge to any Canadian customer of similar class for delivery in the Cornwall, Ontario, area; and

c) The price will not be materially less than the least cost alternative for energy from indigenous sources within the marketing area of Niagara Mohawk.

Chapter 5
The Evidence

The Applicant's case in regard to the firm carrier transfer of power and energy was that its contract with Canadian Niagara entitled it to purchase up to 50 MW; that it had agreements with Niagara Mohawk and Cedars to wheel the power and energy to Cornwall; that this would be done at a reasonable cost thereby allowing the Applicant to supply its customers in Cornwall without the substantial capital investment necessary to provide facilities to obtain power elsewhere.

In regard to the export of interruptible energy, the Applicant stated that this energy came from that portion of the energy from Cedars which could not be used on its own system and from an unavoidable discrepancy between the amount of energy supplied by Canadian Niagara and the amount used on the St. Lawrence system; the discrepancy is inherent in scheduling the supply as closely as possible to the daily load pattern without creating a deficiency in supply. This difference remains in the Niagara Mohawk system and is considered a sale of interruptible energy for accounting purposes. The Applicant argued that this energy was surplus to Canadian requirements and that the export price met the Board's three price guidelines set out in the NEB Part VI Regulations, Paragraph 6(2)(z). St. Lawrence also stated that the revenue from these exports was passed on to its customers as a saving and has helped maintain a low rate structure for the residents of Cornwall.

Regarding the export of circulating energy the Applicant argued that circulating power and energy was a normal and inevitable operating characteristic of the Cedars system and that the requested licence was required to be able to account for this flow.

The Applicant also claimed that the interconnections, contracts and other arrangements associated with the application have considerably eased some of the operating problems previously encountered, resulting in an improved supply of power to its customers.

As part of its application, St. Lawrence filed the following contracts covering its sources of supply:

1) An agreement dated 22 December 1983 between Cedars Rapids Transmission Company Limited and St. Lawrence (Exhibit IV). Under this contract, Cedars will sell to St. Lawrence 55 MW of power at 100% load factor for the six-month period from 1 July 1984 to 31 December 1984. This agreement also permits St. Lawrence to use the Cedars lines for exports of interruptible energy.

2) An agreement dated 28 September 1981 between Hydro-Québec and St. Lawrence (Exhibit XVII). Under this agreement Hydro-Québec agrees to supply interruptible energy to St. Lawrence if it is available, providing St. Lawrence is not exporting power or energy at the time. The agreement took effect on 1 December 1980 and will terminate on 30 December 1985.

3) An agreement dated 30 June 1977 between Niagara Mohawk Power Corporation and St. Lawrence (Exhibit XIV). Under this agreement, Niagara Mohawk will supply emergency service to St. Lawrence at any time throughout the year and supply power and energy on a regular basis between October 1st of each year and March 31st of the following year. The agreement took effect on 1 October 1977, and will continue until terminated by St. Lawrence.

4) An agreement between Ontario Hydro, Niagara Mohawk and St. Lawrence dated 10 July 1978 (Exhibit XIII). Under this agreement, Ontario Hydro agrees that, if St. Lawrence loses both its normal power supplies from Niagara Mohawk and Cedars, it will provide carrier transfer of emergency power and energy from Niagara Mohawk to St. Lawrence to the extent possible at the time. The agreement took effect on 1 January 1978 and will continue on an annual basis until terminated by either party.

In reply to questions regarding the status of negotiations for renewal of its contract with Cedars, the Appli-

cant stated that it expected to have a new contract, covering at least the requested licence term, finalized in the near future but was unable to give any details.

In reply to questions regarding the availability of power and energy from Hydro-Québec throughout the requested licence term, the Applicant testified that it had been assured by Hydro-Québec that interruptible energy should be available in larger quantities than in recent years. There had also been preliminary negotiations regarding the purchase of short-term firm power and energy but without concrete results as yet.

The Applicant provided forecasts of its power and energy requirements during the requested licence term showing how these would be met from its various sources of supply. Appendix 3 gives the forecasts of annual loads and supplies.

The annual surplus energy available for export as interruptible energy is also shown in Appendix 3. This quantity decreases from 21.7 GW.h in 1984 to 10.3 GW.h in 1989.

When asked why a limit of 150 GW.h had been requested for the interruptible licence in view of these projected surpluses, the Applicant replied that it wished to retain this limit because it required a considerable amount of flexibility due to uncertainties in load growth and in arranging future power supplies.

To demonstrate that the energy it proposes to export as interruptible energy would be surplus to foreseeable Canadian needs, the Applicant provided monthly forecasts of energy usage, showing surpluses during the months from March to November of each year of the requested licence period. Ontario Hydro and Hydro-Québec are the only utilities in Canada which might be interested in purchasing the quantity of energy to be exported under the requested licence. The Applicant has offered the energy to both at the export price and both stated that they had no wish to purchase any of the proposed export at present; however, Ontario Hydro indicated that it wished to continue to have the opportunity to purchase the energy at the time it is to be exported.

In addition to exports, quantities of energy estimated by the Applicant as up to 150 GW.h per annum could circulate in the Cedars lines between Canada and the United States under certain operating conditions because of the electrical characteristics of the system.

The carrier transfer from Canadian Niagara would be priced in accordance with the agreement of 14 December 1983. The rates consist of a demand charge of $7.84 per kW per month and an energy charge of $0.0175 per kW.h. Niagara Mohawk would wheel this power from the international boundary in the Niagara area to the international boundary in the Cornwall area at a cost of $2.72 per hour per MW (U.S.). This rate was set in 1982 and is still in force. This charge is reviewed on July 1st of each year. To carry out its obligations under this agreement, Niagara Mohawk has leased the necessary transmission capacity on Long Sault's transmission lines between Niagara Mohawk's Dennison substation and the international boundary at Cornwall.

Under the agreement with Cedars dated 22 December 1983 (Exhibit IV), this power and energy would be wheeled to St. Lawrence's Rosemont Station in Cornwall, at a rate of 0.1 mill per kW.h as metered at the Dennison Substation of Niagara Mohawk.

Under the agreement with Hydro-Québec dated 28 September 1981, St. Lawrence purchases interruptible energy if available and when required. The Applicant proposes to use this energy to meet its load during those winter months when the supplies from Cedars and Canadian Niagara are not sufficient. The price for this energy is set by an Operating Committee but will not be less than the average price of interruptible energy exported to the United States by Hydro-Québec over the Cedars Lines.

If this energy is not available, St. Lawrence will purchase its peaking requirements from Niagara Mohawk under a service contract dated 30 June 1977 and amended on 17 May 1983. The basic monthly rate under this agreement consists of a demand charge of $405.50 (U.S.) for the first 40 kW plus $5.55 (U.S.) for each additional kW plus an energy charge of $0.04064 (U.S.) per kW.h. This power and energy will be provided as required between October 1st of each year and March 31st of the following year. The contract also covers the supply of emergency service at any time.

The Applicant also filed a copy of its latest rate schedule, effective 1 January 1984.

The interruptible energy exported under the requested licence would be priced in accordance with the agreement of 15 December 1983 with Niagara Mohawk (Exhibit III). The rate in this agreement is 20 mills per kW.h (U.S.) and may be renegotiated at any time on three days written notice.

To justify the export price of 20 mills/kW.h (U.S.), the Applicant provided evidence on the relationship between the proposed price and the three price guidelines established by the Board.

To show that the export price would recover the cost incurred in Canada (the first guideline), the Applicant compared it to the price that it paid to Cedars. For puchases from Cedars, the combination of demand and energy charges would result in an average cost of 10.5 mills /kW.h. Cedars' charge for wheeling the export to the international boundary would add 0.1 mill/kW.h for a total of 10.6 mills/kW.h. The Applicant concluded that the proposed export price of 20 mills/kW.h (U.S.) would permit the recovery of costs incurred in Canada for the energy to be exported.

To demonstrate that the export price would not be less than rates to Canadians for comparable ser-

vice (the Board's second guideline), the Applicant has written to Hydro-Québec and Ontario Hydro to determine their interest in purchasing the surplus energy and both replied that they were not interested in purchasing the energy at the present time. St. Lawrence also compared the export price to the price paid by Cornwall Electric, its largest industrial customer, which was given as 19.2 mills/kW.h. This price, moreover, is for firm power which is a higher quality service than the supply of interruptible energy.

To show that the export price of 20 mills/kW.h (U.S.) would not be materially less than the least cost alternative at the same location within the U.S. (the Board's third guideline), the Applicant claimed that the least cost alternative for Niagara Mohawk would be its own coal-fired thermal generation which had an estimated average incremental cost of 20.3 mills/kW.h (U.S.) for January 1984; this cost reflects the fact that most of the exports would normally occur during Niagara Mohawk's off-peak periods. It was, therefore, the Applicant's opinion that the export price was not materially less than the least cost alternative.

The agreement between St. Lawrence and Niagara Mohawk provides that the export price of 20 mills/kW.h (U.S.) may be renegotiated at any time on the request of either party in order to ensure that the price conforms with three criteria as set forth in Chapter 4, Subsection 2, of this report which are very similar to the Board's price guidelines. The Applicant confirmed that this price was reviewed every year and it would accept a condition requiring annual review of the export price in any licence to be issued.

With regard to environmental impact from the generation of the energy for export, the Applicant claimed that there would be no such impact since the energy would be generated from existing hydroelectric generating facilities.

Chapter 6
Interventions

Interventions were filed by Cornwall Electric, Ontario Hydro, the Minister of Energy for Ontario and le procureur général du Québec. Le procureur général du Québec did not register an appearance at the hearing but his intervention was filed by Board counsel.

None of the intervenors opposed the application. Cornwall Electric supported the application because the carrier transfer of power from Canadian Niagara provides an important part of the firm power supply for the Cornwall load, the revenue from the export of residual power holds down the cost of power to Cornwall Electric and to its customers and the interconnection with Niagara Mohawk ensures that St. Lawrence will meet its load if it exceeds the amount of power available from Canadian sources and also provides emergency power if all other supplies fail.

Ontario Hydro requested that the conditions ensuring Canadian priority included in the existing interruptible licence EL-115 also be included in any future licence because otherwise energy might be sold to the United States at a price which could have produced an economic benefit if purchased by Ontario Hydro.

Chapter 7
Recommended Disposition

As Presiding Member appointed by the Board under Section 14 of the Act, I have considered carefully the evidence and submissions presented to me and I recommend to the Board that it should grant the application.

Section 83 of the Act requires the Board, in examining an application for an export licence, to have regard to all considerations that appear to it to be relevant. Specifically, the Board is enjoined to satisfy itself that the power to be exported is surplus to reasonably foreseeable Canadian requirements and that the price to be charged is just and reasonable in relation to the public interest.

First Licence Request

The first licence request is for the export of firm power and energy as a carrier transfer through the State of New York for simultaneous return to Canada. Since both the supplier and purchaser are Canadian companies there is no net export of energy except for an unavoidable minimum inherent in scheduling the supply from Canadian Niagara to anticipate the St. Lawrence load. Consequently, the surplus nature of the power and energy is not in question nor is the price a consideration. I have examined the relevant agreements and I am satisfied that they, including the wheeling charges, are reasonable.

Accordingly, I recommend that the Board issue to St. Lawrence a licence to export firm power and energy as a carrier transfer for simultaneous return to Canada. Suggested terms and conditions for the licence are set out in Appendix 4.

Second Licence Request

From my examination of the application and the other evidence submitted, I have concluded that the interruptible energy which would be exported under the proposed second licence will be surplus to reasonably foreseeable Canadian requirements.

I recognize that St. Lawrence does not as yet have supply contracts covering the requested licence term but I am satisfied that when such contracts are finalized, any surplus energy to be exported as interruptible energy would consist only of that residual portion in excess of the Applicant's load during off-peak periods.

In any event, I consider that the usual licence conditions requiring review of the Applicant's supply contracts by the Board would provide the necessary means to detect any deviation from these expectations.

There would be no possible use for such energy on the Applicant's system. The Applicant will offer it to the two adjacent provincial utilities, Hydro-Québec and Ontario Hydro, on the same terms and conditions as for the proposed export, and it will only be exported if both utilities reject it. This should also be reflected in the licence conditions.

Both these utilities have surpluses of their own and are currently exporting power to the United States so that no regular Canadian requirement for this energy is expected. Furthermore, the fact that this export would be entirely interruptible would safeguard the Canadian interest if any unforeseen shortage were to develop.

I am satisfied that the proposed price of 20 mills/kW.h (U.S.) pursuant to Article SEVENTH of the agreement between St. Lawrence and Niagara Mohawk dated 15 December 1983 is just and reasonable in relation to the public interest. Not only does it currently meet the Board's three price guidelines but, pursuant to Articles SIXTH and EIGHT of the agreement, would be reviewed annually to ensure that it satisfies three specified criteria almost identical to the Board's guidelines. The licence should, be conditioned to require a demonstration that these criteria are met and that all price changes be approved by the Board.

Accordingly, I recommend that the Board issue to St. Lawrence a licence to export interruptible energy to Niagara Mohawk. Suggested terms and conditions for the licence are set out in Appendix 5.

Third Licence Request

In regard to the licence request dealing with circulating energy, I am satisfied that no net export of energy would occur since, by definition, quantities exported are simultaneously imported except for any small dis-

crepancies due to metering and losses. It is necessary, however, that such exports and imports be recorded and accounted for.

Accordingly, I recommend that the Board issue to St. Lawrence a licence to make inter-utility carrier transfers of unscheduled circulating equichange of power and energy for simultaneous return to Canada. Suggested terms and conditions of the licence are given in Appendix 6.

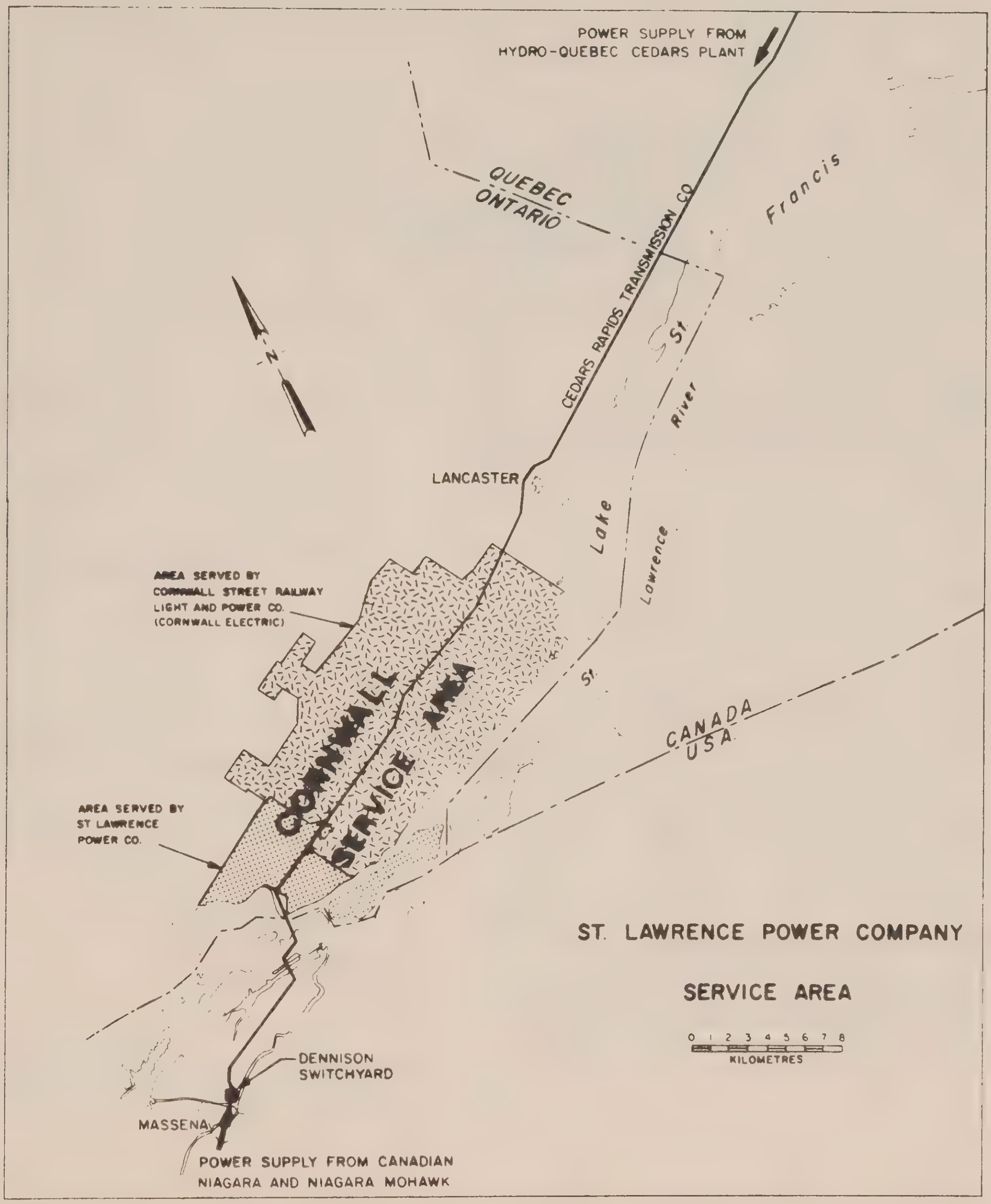
Each of the three licences would run from 1 July 1984 to 30 June 1989.

I submit this, my report, to the National Energy Board in accordance with Section 14 of the Act. I respectfully recommend that it be adopted as the Board's own findings and decision on the application, as allowed under the said section.

R.F. Brooks
Presiding Member

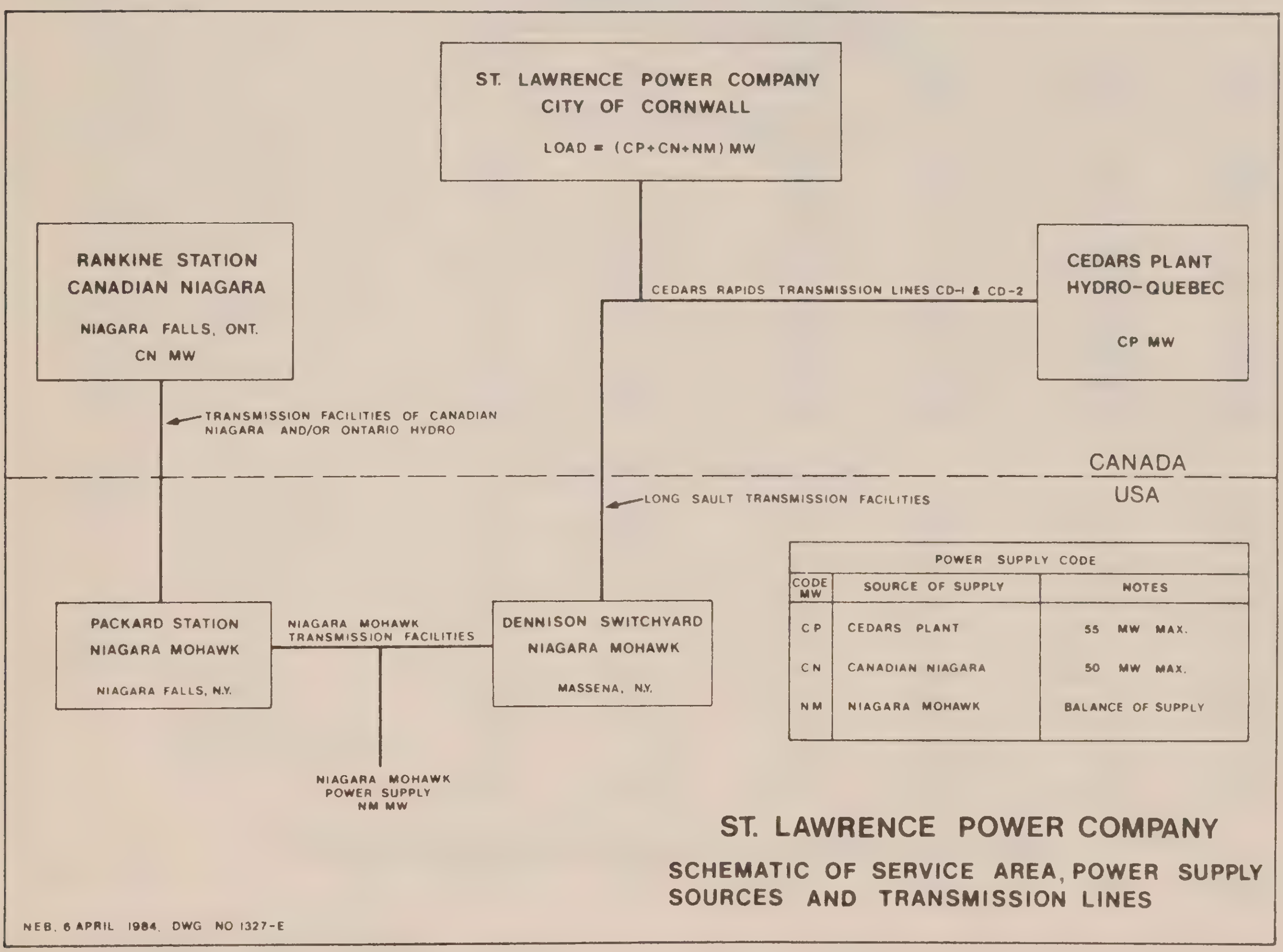
Ottawa, Canada
April 1984

Appendix 1



6 APRIL 1984
NEB. DWG NO 1326-E

Appendix 2


ST. LAWRENCE POWER COMPANY
CITY OF CORNWALL
LOAD = (CP+CN+NM) MW
RANKINE STATION
CANADIAN NIAGARA
NIAGARA FALLS, ONT.
CN MW
CEDARS RAPIDS TRANSMISSION LINES CD-1 & CD-2
CEDARS PLANT
HYDRO-QUEBEC
CP MW
TRANSMISSION FACILITIES OF CANADIAN NIAGARA AND/OR ONTARIO HYDRO
CANADA
USA
LONG SAULT TRANSMISSION FACILITIES
PACKARD STATION
NIAGARA MOHAWK
NIAGARA FALLS, N.Y.
NIAGARA MOHAWK TRANSMISSION FACILITIES
DENNISON SWITCHYARD
NIAGARA MOHAWK
MASSENA, N.Y.
NIAGARA MOHAWK POWER SUPPLY NM MW
POWER SUPPLY CODE
CODE MW
SOURCE OF SUPPLY
NOTES
CP
CEDARS PLANT
55 MW MAX.
CN
CANADIAN NIAGARA
50 MW MAX.
NM
NIAGARA MOHAWK
BALANCE OF SUPPLY
ST. LAWRENCE POWER COMPANY
SCHEMATIC OF SERVICE AREA, POWER SUPPLY SOURCES AND TRANSMISSION LINES
NEB, 6 APRIL 1984, DWG NO 1327-E

Appendix 3

St. Lawrence Power Company
Forecast of Annual Loads and Supplies

		1984	1985	1986	1987	1988	1989
		FIRM POWER - megawatts					
LOADS —	Domestic	59.6	60.9	63.0	64.9	67.0	69.0
	Commercial	43.2	44.5	46.0	47.0	49.2	50.8
	Industrial	9.2	9.4	9.6	9.8	10.0	10.2
	Losses	3.0	3.2	3.4	3.6	3.8	4.0
		115.0	**118.0**	**122.0**	**125.3**	**130.0**	**134.0**
SUPPLY —	Cedars	55.0	55.0	55.0	55.0	55.0	55.0
	CNP (1)	42.0	41.0	41.0	40.0	39.0	38.0
	HQ/NM (2)	18.0	22.0	26.0	30.3	36.0	41.0
		115.0	**118.0**	**122.0**	**125.3**	**130.0**	**134.0**
		FIRM ENERGY - gigawatt hours					
LOADS —	Domestic	267.3	278.7	290.1	302.0	315.8	329.9
	Commercial	200.6	206.6	213.8	221.7	228.5	235.7
	Industrial	76.4	77.2	77.9	78.7	79.5	80.3
	Losses	21.2	21.7	22.4	23.1	23.9	24.6
		565.5	**584.2**	**604.2**	**625.5**	**647.7**	**670.5**
SUPPLY —	Cedars	483.1	481.8	481.8	481.8	483.1	481.8
	CNP (1)	102.6	121.0	138.6	156.7	174.2	194.8
	HQ/NM (2)	1.0	1.5	2.0	2.5	3.0	3.5
	Ontario Hydro (3)	0.5	0.5	0.6	0.6	0.6	0.6
		587.2	**604.8**	**623.0**	**641.6**	**660.9**	**680.7**
		RESIDUAL ENERGY AVAILABLE FOR EXPORT - gigawatt hours					
SURPLUS		21.7	20.6	18.8	16.0	13.2	10.3

(1) CNP-Canadian Niagara Power Co.
(2) HQ/NM-Hydro-Québec or Niagara Mohawk
(3) Ontario Hydro has provided power to a few isolated St. Lawrence customers since 1968.

Appendix 4

TERMS AND CONDITIONS OF LICENCE FOR THE FIRM CARRIER TRANSFER OF POWER AND ENERGY
(Proposed EL-158)

1. The term of this licence shall commence on the later of:
   a) 1 July 1984, or
   b) the day on which the licence is approved by the Governor in Council

   and shall end on 30 June 1989.

2. The class of inter-utility export transfer authorized hereunder is a carrier transfer of firm power and energy through the United States for simultaneous return to the Licensee's system.

3. The power to be exported hereunder shall be exported over the international power lines of the Canadian Niagara Power Company, Limited, for which the Board has issued Certificates of Public Convenience and Necessity Nos. EC-22 and EC-23 and/or over any of the international power lines of Ontario Hydro for which the Board has issued Certificates of Public Convenience and Necessity and shall be returned to Canada over the international power lines of Cedars Rapids Transmission Company Limited for which the Board has issued Certificate of Public Convenience and Necessity No. EC-10.

4. The quantity of power that may be exported hereunder shall not exceed 50 MW.

5. The quantity of energy that may be exported hereunder shall not exceed 250 Gw.h in any consecutive 12-month period.

6. The Licensee shall forthwith inform the Board, in writing, in the event of amending, terminating or entering into any agreement in substitution for or in addition to the following agreements:
   a) the agreement dated 14 November 1978 between Canadian Niagara Power Company Limited and the Licensee for the supply of power and energy.
   b) the agreement dated 20 June 1977 as amended 19 June 1982 between Niagara Mohawk Power Corporation and the Licensee for the carrier transfer of power and energy from Canadian Niagara Power Company Limited to the international border between Massena, New York and Cornwall, Ontario.
   c) the agreement dated 22 December 1983 between Cedars Rapids Transmission Company, Limited and the Licensee for the wheeling of power and energy from the international boundary to St. Lawrence's Rosemont Station in Cornwall, Ontario.

7. The Licensee, within 15 days after the end of each month during the term of this licence, shall file with the Board a report in such form and detail as the Board may specify, setting forth for that month information pertaining to transactions under the Licence.

Appendix 5

TERMS AND CONDITIONS OF LICENCE FOR THE EXPORT OF INTERRUPTIBLE ENERGY
(Proposed EL-159)

1. The term of this licence shall commence on the later of
   a) 1 July 1984, or
   b) the day on which the licence is approved by the Governor in Council.

   and shall end on 30 June 1989.

2. The class of inter-utility export transfer authorized hereunder is a sale transfer of interruptible energy.

3. The energy to be exported hereunder shall be transmitted over the international power lines of Cedars Rapids Transmission Company Limited for which the Board has issued Certificate of Public Convenience and Necessity No. EC-10 or those of the Canadian Niagara Power Company for which the Board has issued Certificate of Public Convenience and Necessity Nos. EC-22 and EC-23 and/or over any of the international power lines of Ontario Hydro for which the Board has issued Certificates of Public Convenience and Necessity.

4. The quantity of energy that may be exported hereunder shall not exceed 150 GW.h in any consecutive 12-month period throughout the term of the licence.

5. The Licensee shall not export energy hereunder whenever and to whatever extent such energy is required to supply:

   a) the Licensee's firm load requirements, or

   b) any firm load of Ontario Hydro or Hydro-Québec whenever either utility lacks generating capacity to meet such firm load, or

   c) Ontario Hydro or Hydro-Québec when either utility wishes to buy part or all of the energy at the export price, adjustments having been made corresponding to any differences in the cost on the Licensee's system of delivering the energy to the said electrical utility instead of to the export customer.

6. The price to be charged by the Licensee for energy exported hereunder shall not be less than the greater of

   a) the price prescribed in Article SEVENTH of the agreement dated 15 December 1983 between the Licensee and Niagara Mohawk Power Corporation, or

   b) the price as determined in accordance with Articles EIGHTH and SIXTH of the agreement referred to in Subcondition 6(a).

7. The Licensee shall, prior to 1 July of each year in the term of this licence, or prior to such later date as the Board upon application of the Licensee may fix, submit to the Board for its approval a statement of the export price to be charged for the following calendar year, together with a statement demonstrating that such price complies with the requirements of Condition 6.

8. The price specified in accordance with Condition 7, upon being approved by the Board, shall be the minimum price for energy sold under this licence throughout the following calendar year unless otherwise directed by the Board.

9. The Licensee shall not, without the prior approval of the Board, amend, terminate or enter into any agreement in substitution for or in addition to the agreement dated 15 December 1983 between Niagara Mohawk Power Corporation and the Licensee for the sale of surplus interruptible energy.

10. The Licensee shall forthwith inform the Board in writing, in the event of amending, terminating or entering into any agreement in substitution for or in addition to the agreement dated

22 December 1983 between Cedars Rapids Transmission Company Limited and the Licensee for the supply of power and energy and the carrier transfer of energy from the Licensee's Rosemont Station in Cornwall to the international boundary.

11. The Licensee, within 15 days after the end of each month during the term of this licence, shall file with the Board a report in such form and detail as the Board may specify, setting forth for that month information pertaining to transactions under the Licence.

Appendix 6

TERMS AND CONDITIONS OF LICENCE FOR THE EXPORT OF UNSCHEDULED EQUICHANGE TRANSFERS OF INADVERTENT POWER AND ENERGY
(Proposed EL-160)

1. The term of this licence shall commence on the later of
   a) 1 July 1984, or
   b) the date on which the licence is approved by the Governor in Council

   and shall end on 30 June 1989.

2. The class of inter-utility export transfer authorized hereunder is an unscheduled circulating equichange carrier transfer of inadvertent power and energy for export and simultaneous return to Canada.

3. The energy to be exported hereunder shall be transmitted over the international power lines of Cedars Rapids Transmission Company Limited for which the Board has issued Certificate of Public Convenience and Necessity No. EC-10.

4. The quantity of energy exported hereunder shall not exceed 150 GW.h in any consecutive 12-month period throughout the term of the licence.

5. The Licensee, within 15 days after the end of each month during the term of this licence, shall file with the Board a report in such form and detail as the Board may specify, setting forth for that month information pertaining to transactions under the Licence.